IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

Please REPLACE the paragraph beginning at page 2, line 7, with the following paragraph:

[0007] Japanese Patent Publication Gazette No. Heisei 8-85788 and U.S. Patent No. 5,619,098 disclose an $SrTiO_2$ based phosphor prepared by adding a rare earth element and a Group 13 element to a host matrix composed of alkaline earth metal oxide and titanium oxide, the disclosures of which are incorporated by reference. The disclosed phosphor does not contain cadmium (Cd), which is known to be environmentally toxic and can be excited by low-velocity electron beams to emit light. However, this phosphor has not yet been put into practice due to its short lifespan.

Please REPLACE the paragraph beginning at page 2, line 22, with the following paragraph:

[0010] Accordingly, to achieve the above and other objects of the present invention, there is provided a phosphor according to an embodiment of the invention comprising a perovskite structure which includes sulfur (S) and satisfies the following formula:

$$MTiO_3:A$$

where M is an alkaline earth metal and A is a rare earth element.

Please REPLACE the paragraph beginning at page 2, line 27, with the following paragraph:

[0026] According to an aspect of the invention, the alkaline earth metal is Mg, Sr, Ca, or Ba, and the rare earth element is Ce, Pr, Eu, Tb, or Tm.

Please REPLACE the paragraph beginning at page 3, line 8, with the following paragraph:

[0016] According to an additional aspect of the invention, the sulfur contained in the phosphor is added in a form of a sulfur element or an alkaline metal ~~sulfate~~sulfur-containing compound, and the alkaline metal ~~sulfate~~ sulfur-containing compound is one of $Na_2S_2O_3 \cdot 5H_2O$ ~~or~~ and Na_2SO_4.

Please REPLACE the paragraph beginning at page 4, line 2, with the following paragraph:

[0022] A phosphor according to an embodiment of the present invention has a longer lifespan and is prepared by changing the crystal lattice of a phosphor that contains a rare earth element and a Group 13 element based on a host matrix of an alkaline earth oxide and titanium (Ti) oxide, by the addition of sulfur or an alkaline metal ~~sulfate~~sulfur-containing compound.

Please REPLACE the paragraph beginning at page 4, line 6, with the following paragraph:

[0023] FIG. 1 shows a cubic perovskite structure of a phosphor according to the present invention. In particular, Ti is located at the center of the cubic perovskite structure, an alkaline earth metal is located on the vertices, and oxygen is located at the center of each face of the structure. Although not shown in FIG. 1, a rare earth element serving as an activator is located at the vertices by partially replacing an alkaline earth metal.

Please REPLACE the paragraph beginning at page 4, line 11, with the following paragraph:

[0024] When the phosphor having the structure described above is excited by an external light, the light energy is absorbed by Ti and in turn transferred to the alkaline earth metal located

at the vertices of the cubic perovskite structure to emit light. The activator substitute at the vertices considerably affects the light emission.

Please REPLACE the paragraph beginning at page 4, line 19, with the following paragraph:

[0026] The phosphor according to the present invention has lattice parameters in a crystalline structure that are varied by partially substituting oxygen atoms in the structure with sulfur atoms by adding sulfur or alkaline metal sulfate to a phosphor host matrix having a perovskite structure. Bond distances between the center metal and the oxygen atoms (Ti-O) and between the alkaline earth metal and the oxygen atoms (e.g., Si-O) are changed by substituting the oxygen atoms with the sulfur atoms. The change in the lattice parameter affects a light emission from the phosphor, thereby improving a luminance and lifespan of the phosphor.

Please REPLACE the paragraph beginning at page 4, line 26, with the following paragraph:

[0027] In the present invention, the sulfur or alkaline metal ~~sulfate~~ sulfur-containing compound is added to substitute the oxygen atoms present in the crystalline structure with the sulfur atoms. Preferably, the sulfur or an alkaline metal ~~sulfate~~ sulfur-containing compound is added in an amount of 0.1 - 300 mol% based on 1 mol of Ti. If the amount of the sulfur or the alkaline metal ~~sulfate~~ sulfur-containing compound is less than 0.1 mol% based on 1 mol of Ti, improvements in the luminance and lifespan are not significant. If the amount of the sulfur or the alkaline metal ~~sulfate~~ sulfur-containing compound added exceeds 300 mol% based on 1 mol of Ti, it is uneconomical in industrial terms. When the sulfur or the alkaline metal ~~sulfate~~ ssulfur-containing compound is added in an amount of the above rate, the resultant phosphor contains about 0.1 - 10% by weight sulfur atoms based on the total weight.

Please REPLACE the paragraph beginning at page 5, line 4, with the following paragraph:

[0028] The alkaline metal ~~sulfate~~ sulfur-containing compound added in the preparation of the phosphor according to the present invention is preferably sodium sulfate, more preferably

$Na_2S_2O_3 \cdot 5H_2O$ (sodium thiosulfate pentahydrate) or Na_2SO_4.

Please REPLACE Table 1 beginning at page 6, line 1, with the following table:

Table 1. Composition for Examples 2-8

Example		Ex 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6	EX. 7	Ex. 8
Alkaline earth metal	Compound	$SrCO_3$	$SrCO_3$	$SrCO_3$	$SrCO_3$	$SrCO_3$	$SrCO_3$	$SrCO_3$
	Content (mol)	1	1	1	1	1	1	1
Ti oxide	Compound	TiO_2	TiO_2	TiO_2	TiO_2	TiO_2	TiO_2	TiO_2
	Content (mol)	1	1	1	1	1	1	1
Group 13	Compound	$Al(OH)_3$	$Al(OH)_3$	$Al(OH)_3$	$Al(OH)_3$	$Al(OH)_3$	$Al(OH)_3$	$Al(OH)_3$
	Content (mol%)	23	23	23	-	-	23	23
Rare earth element	Compound	$PrCl_3$	$PrCl_3$	$PrCl_3$	$PrCl_3$	$PrCl_3$	$PrCl_3$	$PrCl_3$
	Content (mol%)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Additive	Compound	S	S	S	$NaS_2O_2 \cdot 5H_2O$	Na_2SO_3	$NaS_2O_2 \cdot 5H_2O$	Na_2SO_3
	Content (mol%)	32	62	125	8	14	8	14
Sintering temperature(°C)		1,250	1,250	1,250	1,250	1,250	1,250	1,250
Sintering time (hour)		3	3	3	3	3	3	3

AMENDMENTS TO THE DRAWINGS:

The attached drawing includes changes to FIG. 1. The sheet containing FIG. 1 replaces the original sheet including FIG. 1. In FIG. 1, "Alkali earth metal" has been amended to recite --- Alkaline earth metal---.

In the Office Action, the Examiner objected to the drawing. In order to overcome these objections, a replacement figure is submitted herewith. In FIG. 1, "Alkali earth metal" has been amended to recite ---Alkaline earth metal---.

Approval of these changes to the Drawing is respectfully requested.